

**A Fishing Float for positioning, Detecting Fish Catch and
Lighting**

5 **Field of the Invention**

This invention is related to an improved fishing float, in particular, the fishing float includes a float base with a flat bottom. The bright light emitted by the float shows the fisherman where the fish hook is and the float indicates whether a fish is caught or
10 not.

Background of the Invention

The float and night vision light are necessities for night fishing which provides the
15 fisherman the indication of a fish catch. There are diverse floats and night vision lights available for use in fishing independently or in combination thereof for the fisherman to see clearly the response of the float. However, most floats are designed with a round bottom, which makes it easy for the waves to drive them back to the sea shore. If the float is too far away and the night vision light is not available, there is no advance
20 warning signal to indicate whether a fish are caught or not. Furthermore, the night vision light uses batteries that are difficult to dispose of, and this becomes an environmental problem. The prior art float is unable to provide positioning and identification of a fish catch without the aid of the night vision light.

25 **Summary of Invention**

The main object of this invention is to provide a float for easy positioning and bright lighting to reveal an early signal of a fish catch without the aid of a night vision light. The main improvement is to add to the float an inductive device and the lighting

device along with a base and a top lid. The inductive device comprises an inductive circuit board, an inductive coil, an inductive shaft and a spring. The lighting device contains the light circuit board, LEDs and a pedestal. The base bottom is a flat design. This combination is suitable for pond fishing and sea fishing. Because the flat bottom
5 always keeps the float at a fixed place, the waves do not drive the float back to shore. When the fish bites the bait (attached to a hook and line connected to the float), the inductive shaft is pulled down and this action causes the inductive coil to leave its induced range. At this instant, the central LED emits a red light and the outer LEDs continue to emit blue light. In other words, if the fish is not biting, only the blue light is
10 visible, and no red light is visible. The flat bottom design and the change of light colors (a combination of blue light with the red light) serve as a warning signal the moment a fish bites the bait on the fish hook.

The invention is explained in great detail with the aid of embodiments as
15 illustrated in the attached drawings.

Brief Description of Drawings

Fig. 1 shows an exploded view of the float of this invention.
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Fig. 2 shows a partially exploded view of the float of this invention.

Fig. 3 shows a schematic view of the assembled float of the invention.

Detailed Description of the Invention

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Please refer to Figs. 1 and 2. The float (1) consists of a base (10), a top lid (20), a lock bolt (30), a waterproofing washer (40), a battery compartment (50), a light device

(60) and an inductive device (70). The base (10) includes a round housing separated into an empty compartment (101). A central hollow post (102) forms a connecting rod (103) at the lower end of the central hollow post (102). The base (10) is linked to the inductive coil (702). The lock bolt (30) has an inner thread to be locked on to the
5 connecting rod (103). Because the bottom of the base is a flat design, it tends to float at a fixed place and is unaffected by sea waves.

The top lid (20) is a round casing made of the transparent material so that the red light or the blue light emitted from the light-emitting diodes LEDs (602) of the lighting
10 device (60) are clearly visible.

The waterproof washer (40) sits between the top lid (20) and the base (10) to keep the water from entering into the base (10).

15 The battery compartment (50) for a battery is housed in the space formed by the top lid (20) and the base (10). A battery (not shown) is the power source for the lighting device (60) and the inductive device (70).

The lighting device (60) is mounted on top of the battery compartment (50). The
20 lighting device (60) comprises the lighting circuit board (601), LEDs (602) and the pedestal (603). The lighting circuit board (601) is linked to the LEDs (602). The central protruded LED is red which is only activated when a fish pulls at bait attached to the float device via a hook. Blue LEDs surround the red LED. The pedestal (603) has a plurality of holes (604) permitting the LEDs (602) to extend out of the holes (604) so the
25 red and blue lights are visible from outside of the transparent top lid (20).

The inductive device (70) is placed under the battery compartment (50), consisting of an inductive circuit board (701), an inductive coil (702), an inductive shaft

(703) and spring (704).

The circuit board (701) is housed in the empty compartment (101) in the base (10). The inductive coil (702) encircles the central post (102). The inductive shaft (703), the spring (704) and the connecting rod (103) will be held together by the lock bolt (30) but one end of the inductive shaft (703) will extend out of the lock bolt (30) but it is prevented from falling out of the lock bolt (30). The size or type of the spring (704) is commensurate with the weight of the fish the fisherman intends to catch. The outer end of connecting rod (703) as shown in Figs. 2 and 3 is connected to a hook, line and bait (not shown).

As shown in Fig. 3, the float (1) is easily visible and floats at a stationary position.

In practice, the float (1) of this invention tends to float at a fixed place and is not easily pushed by the waves to the shore. If the fish bites the bait on the hook secured to an end of the inductive shaft (703) by a line, the inductive shaft (703) is pulled downwards from the inductive device (70), and leaves the induced range of the inductive coil (702). The central LED (602) on the lighting device (60) will then emit the red light LED and the blue LEDs surrounding the lighting device (60) will continue emitting blue light. If no fish is biting, only the blue LEDs (602) of the lighting device (60) will light. Since the base (10) is designed with a flat bottom, it is always buoyed up at a fixed place away from the shore. The different light combination (blue lights plus red light) of the LEDs (602) of the lighting device (60) gives the fisherman visible warning signals.